What an abnormal FIT result really means

In November 2013 British Columbia's Colon Screening Program became fully available across the province. This important new program offers colorectal cancer screening to asymptomatic men and women between the ages of 50 and 74.

Individuals at average risk are screened using the fecal immunochemical test (FIT), which has been available in British Columbia for the past 5 years and has been covered by MSP since April 2013. Because FIT is a relatively new test in this province, there has been some confusion about the test, particularly when there is an abnormal result.

FIT is a quantitative test with a threshold of 50 nanograms per millilitre of hemoglobin. While FIT is a good screening test, it is important that patients understand that FIT is not a diagnostic test, regardless of the level of blood present in the sample submitted.

FIT can only tell us that there may be bleeding from somewhere in the lower digestive tract. It cannot tell us from which part or why. Blood can be present in the stool for many reasons, including hemorrhoids, ulcers, anal fissures, diverticular disease, or inflammation. And, like any test, FIT may give an abnormal result even though there is nothing wrong.

On average, 15% of individuals screened with FIT will have an abnormal FIT result and will require additional testing. This does not mean that a cancer was found—over 96% of those with an abnormal FIT will not have cancer. Some of these patients may have adenomas (precancerous polyps). Most adenomas will never turn into cancer, and for those that do, it will take many years for this transition, which is why patients should be screened regularly.

Colonoscopy is necessary after an abnormal FIT to ensure that no cancer is present. Removal of adenomas at colonoscopy has been shown to decrease the mortality and incidence of colorectal cancer. Colonoscopy is a safe and accurate test, and quality assurance programs are being implemented throughout the province to ensure the safety and efficacy of colonoscopy are maximized.

For more information on FIT or the Colon Screening Program, visit www.screeningbc.ca.

—Jennifer J. Telford, MD
Medical Director, BC Cancer Agency Colon Screening Program

Synchronized medicine

Understanding how the immune system responds to multiple infections may lead to more effective, coordinated immunotherapy, according to Dr Georgia Perona-Wright, a professor in the UBC Department of Microbiology and Immunology. Dr Perona-Wright is researching ways to manipulate the body's immune system and boost its natural defences. Specifically, Dr Perona-Wright is studying how instructions are sent between cytokines—different infections cause cells to release different types of cytokines. Until recently, it was believed that cytokines released by one cell would only activate the cells next to it. Dr Perona-Wright discovered that cytokines leak out beyond their local environment, influencing cells much further afield.

The antibiotics, antivirals, and antiparasite drugs that have been used for the past 70 years to deal with infections have been wildly successful, but the incidence of antibiotic resistant bacteria is increasing. Dr Perona-Wright hopes that studying how far and how fast cytokines spread will lead to a better understanding of how to control the body's response to infection and even to multiple infections at once, offering new weaponry that could be used in combination with currently available drugs. For more information, e-mail the UBC Public Affairs department at public.affairs@ubc.ca.

Potential treatment for rare blood cancer

University of British Columbia researchers have discovered a potential new treatment for a rare blood cancer that may also point the way to treating other more common diseases.

Paroxysmal nocturnal hemoglobinemia (PNH) is a rare form of cancer characterized by episodic rupture of red blood cells and the danger of blood clots forming in the vascular system. The condition results in red blood cells becoming vulnerable to attacks by the body's own complement immune system and can lead to complications such as anemia, kidney disease, and fatal thromboses.

In a clinical study published in *PLOS ONE*, the UBC team, led by Dr Patrick McGeer, professor emeritus in UBC's Department of Psychiatry, applied aurin tricarboxylic acid (ATA), a nontoxic drug, to blood samples of five patients with PNH who were undergoing standard treatment with antibodies administered through biweekly infusions.

Researchers found the addition of ATA restored blood cell resistance to complement system attacks, while the antibodies alone did not offer full protection.

Since many diseases are caused or worsened by an overactive complement immune system, Dr McGeer believes the discovery of ATA's effectiveness in this rare disease could have wide-reaching implications for conditions such as Alzheimer and Parkinson diseases, macular degeneration,

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amyotrophic lateral sclerosis, multiple sclerosis, and rheumatoid arthritis.

Further testing is underway and Dr McGeer hopes the treatment may be available in clinics within a year.

Progesterone safe for cardiovascular health

Treating severe hot flashes and night sweats in postmenopausal women with progesterone poses little or no cardiovascular risk, according to a study by the University of British Columbia and Vancouver Coastal Health.

The findings, published in *PLOS ONE*, help to dispel a major impediment to widespread use of progesterone as a treatment for hot flashes and night sweats, according to Dr Jerilynn C. Prior, a professor of endocrinology and head of the Centre for Menstrual Cycle and Ovulation Research.

For decades, women used a combination of synthetic estrogen and progesterone to reduce the frequency and severity of hot flashes and night sweats, as well as to prevent osteoporosis. Use of this so-called hormone replacement therapy dropped dramatically after 2002 when a large study revealed that it increased risk of heart disease, breast cancer, stroke, and other serious conditions.

To evaluate the cardiovascular risk of using progesterone to alleviate symptoms, Dr Prior recruited 110 healthy Vancouver-area women who had recently reached postmenopause, giving half of them oral progesterone and the others a placebo for 3 months. The team used each woman's age and changes in blood pressure and cholesterol levels to calculate their 10-year risk of a heart attack and other blood vessel diseases and found no difference between those taking progesterone and the control group. The study also found no significant difference on most other markers for cardiovascular disease.

Dr Prior has been prescribing progesterone since 1995 for postmenopausal women to treat flashes and night sweats, and for perimenopausal women to alleviate hot flashes, heavy menstrual flow, and sore breasts. In a randomized controlled study published in 2012 Dr Prior showed that progesterone significantly reduced the intensity and frequency of night sweats and hot flashes, compared to a placebo, in postmenopausal women. Dr Prior is now recruiting Canadian women for a similar study examining progesterone's effectiveness for treating perimenopausal night sweats and hot flashes. For more information, visit http://bit.ly/progesterone-study.

Society for enhanced patient safety formed

British Columbia's 26 regulated health professions, governed by 22 colleges under the Health Professions Act, and 1 under the Social Workers Act, have incorporated under the Society Act to become the Health Profession Regulators of BC Society.

The society will collaborate on the development of common approaches to core regulatory functions such as registration and licensing, handling complaints from patients, quality assurance activities, and the development of professional standards.

In September 2013 the society launched Our Purpose, Your Safety, a campaign designed to raise public awareness about the role colleges play in patient safety and to shine a spotlight on the importance of seeing a regulated health professional. For more information visit www.bchealthregulators.ca.

Annual billing limit triples for telephone-consult fee

Physicians who have billed 14070 (or 14071 for locums) and are billing A GP for Me fee codes are likely aware that they can bill for telephone management consultations with patients using fee code 14076. Retroactive to 1 January 2014, the General Practice Services Committee (GPSC) has raised the limit for telephone consultations from 500 calls per year to 1500 calls per physician practice per calendar year.

These telephone consultations are an efficient way to connect with patients as an alternative to a face-to-face visit and can help increase capacity in physician practices.

The billing limit for the telephone or e-mail follow-up management fee (14079) remains unchanged at five per calendar year for any patient for whom one of the portal planning-related fees (14033, 14043, 14053, 14063, or 14075) has been billed for complex care, mental health care, palliative care planning, or COPD chronic disease management. For patients who are eligible for 14079, it is advisable to use this first, saving the 14076 fee for other patients who would benefit from telephone visits.

For more information on this and other GPSC fee codes see the GPSC billing guide at www.gpscbc.ca/billing-guide-fees.